Descriptive Summary of the Changes in Coastal Georgia, January 20, 1992, to December 19, 1997

Forested lands dominated the landscape of Georgia with more than 3.4 million acres (approximately 41 percent of the land) covered by evergreen, mixed, deciduous, and wetland forests. At over 650,000 acres, forestry transitions constituted the greatest change detected by the C-CAP land cover analysis in Georgia. These transitions represented a cyclic silviculture process, which involved the harvest and reforestation of evergreen tree stands. Evergreen farming is a monoculture farming practice common to the Southeast region of the United States. This process was clearly illustrated by the initial change of evergreen forest to bare land following the clearing of a forest, after which grasses colonized the area, transforming the land cover to grassland. Finally, after the reforestation of seedlings, this grassland started to develop into scrub/shrub, eventually reverting to mature evergreen forest. This was evidenced in the data set with over 43,000 acres of evergreen forest transformed to bare land, 66,000 acres of evergreen forest converted to grassland, and 52,000 acres of grassland and 81,000 acres of scrub/shrub reverting to mature evergreen forest.

When forests are converted to low intensity development, such as residential neighborhoods, the impact to the affected forests may be less because, typically, 20 to 50 percent of the vegetative cover remains in residential neighborhoods through the incorporation of large yards, parks, trees and open spaces. High intensity development, such as industrial parks, parking lots, and highways, impacts once-forested areas severely as the area is no longer predominated by vegetation; rather the landscape is dominated by buildings and paved surfaces. About 17,000 acres of combined forest, scrub/shrub, and grasslands were lost to development during the period from 1992 to 1997.

Wetland transformations were evident through the conversion of wetland land covers to evergreen stands. First, natural growth was thinned and removed from the wetland, after which the area was partially filled and then planted with evergreen forest seedlings for incorporation into the silviculture industry. This process was not cyclical because it ended after the maturity and harvest of the evergreen forest stands. Typically, after the harvest, the land was sold to developers and slated to become new residential communities. From 1992 to 1997, about 7,000 acres of wetland changed to evergreen forest.

Below are three tables. The first two tables contain a data summary for the time 1 and time 2 images. These images were used to create the change image and their tables include; land cover classes, the number of pixels present in each class, and their corresponding values in acres.

The third table is a complete change matrix for time 1 and time 2 images and includes a smaller, generalized table, which groups similar classes together. Table three compares each class from time 1 to time 2 and illustrates the change that took place between classes. The table presents the total acres for each class, the total percent that each class represents, the total acres that changed, and the percent of change they represent.

Tabular Summary: Georgia, January 20, 1992

	CLASS	PIXELS	ACRES	PERCENT
1	Unclassified	0	0	0.00%
2	High Intensity Developed	151905	30489	0.36%
3	Low Intensity Developed	382249	76721	0.90%
4	Cultivated Land	2795150	561016	6.59%
5	Grassland	3615814	725732	8.52%
6	Deciduous Forest	18939	3801	0.04%
7	Evergreen Forest	9031664	1812750	21.29%
8	Mixed Forest	652117	130887	1.54%
9	Scrub/Shrub	7832061	1571977	18.46%
10	Palustrine Forested Wetland	7571527	1519685	17.85%
11	Palustrine Scrub/Shrub Wetland	875793	175781	2.06%
12	Palustrine Emergent Wetland	137885	27675	0.33%
13	Estuarine Forested Wetland	0	0	0.00%
14	Estuarine Scrub/Shrub Wetland	0	0	0.00%
15	Estuarine Emergent Wetland	1969118	395223	4.64%
16	Unconsolidated Shore	47520	9538	0.11%
17	Bare Land	223673	44894	0.53%
18	Water	7120703	1429200	16.78%
19	Palustrine Aquatic Bed	0	0	0.00%
20	Estuarine Aquatic Bed	0	0	0.00%
21	Tundra	0	0	0.00%
22	Snow/Ice	0	0	0.00%
	TOTALS	**42426118**	**8515368**	**100.00%**

Tabular Summary: Georgia, December 19, 1997

	CLASS	PIXELS	ACRES	PERCENT
1	Unclassified	0	0	0.00%
2	High Intensity Developed	171535	34429	0.40%
3	Low Intensity Developed	449806	90281	1.06%
4	Cultivated Land	2802154	562422	6.60%
5	Grassland	3326460	667656	7.84%
6	Deciduous Forest	19023	3818	0.04%
7	Evergreen Forest	9449897	1896694	22.27%
8	Mixed Forest	645423	129543	1.52%
9	Scrub/Shrub	7412470	1487761	17.47%
10	Palustrine Forested Wetland	7136775	1432426	16.82%
11	Palustrine Scrub/Shrub Wetland	1337917	268534	3.15%
12	Palustrine Emergent Wetland	138440	27786	0.33%
13	Estuarine Forested Wetland	0	0	0.00%
14	Estuarine Scrub/Shrub Wetland	0	0	0.00%
15	Estuarine Emergent Wetland	1969752	395350	4.64%
16	Unconsolidated Shore	43225	8676	0.10%
17	Bare Land	375958	75459	0.89%
18	Water	7147283	1434535	16.85%
19	Palustrine Aquatic Bed	0	0	0.00%
20	Estuarine Aquatic Bed	0	0	0.00%
21	Tundra	0	0	0.00%
22	Snow/Ice	0	0	0.00%
	TOTALS	**42426118**	**8515368**	**100.00%**

Change Matrix and Tabular Summary: Georgia from January 20, 1992 to December 19, 1997

	FROM / TO	High Intensity Developed	Low Intensity Developed	Cultivated Land	Grassland	Deciduous Forest	Evergreen Forest	Mixed Forest	Scrub/Shrub	Palustrine Forested Wetland	Palustrine Scrub/Shrub Wetland	Palustrine Emergent Wetland	Estuarine Forested Wetland	Estuarine Scrub/Shrub Wetland	Estuarine Emergent Wetland	Unconsolidated Shore	Bare Land	Water	Palustrine Aquatic Bed	Estuarine Aquatic Bed	Tundra	Snow/Ice	Total Acres	Changed	
2	High Intensity Developed	30489	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**30,489**	**0**	High Intensity Developed
3	Low Intensity Developed	1074	75648	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**76,721**	**1,074**	Low Intensity Developed
4	Cultivated Land	42	48	555361	3025	0	159	0	2041	26	209	4	0	0	0	0	83	18	0	0	0	0	**561,016**	**5,655**	Cultivated Land
5	Grassland	606	1802	4053	584396	0	15064	102	117699	482	88	1	0	0	0	14	5	746	674	0	0	0	**725,731**	**141,335**	Grassland
6	Deciduous Forest	1	1	0	1	3795	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**3,801**	**7**	Deciduous Forest
7	Evergreen Forest	1271	9180	823	65993	1	1234750	165	440382	0	16760	7	0	0	0	13	12	42974	416	0	0	0	**1,812,746**	**577,996**	Evergreen Forest
8	Mixed Forest	2	69	1	1041	0	36	128716	748	54	194	0	0	0	0	0	0	25	1	0	0	0	**130,886**	**2,170**	Mixed Forest
9	Scrub/Shrub	766	2795	1931	12396	20	638823	473	911553	59	39	13	0	0	0	16	3	2597	494	0	0	0	**1,571,977**	**660,424**	Scrub/Shrub
10	Palustrine Forested Wetland	37	204	155	173	0	0	15	0	1413830	102302	365	0	0	0	9	0	1287	1307	0	0	0	**1,519,683**	**105,853**	Palustrine Forested Wetland
11	Palustrine Scrub/Shrub Wetland	52	193	76	223	1	6947	62	0	17749	147118	125	0	0	0	67	0	2813	353	0	0	0	**175,781**	**28,663**	Palustrine Scrub/Shrub Wetland
12	Palustrine Emergent Wetland	0	7	1	22	0	4	1	64	36	574	26884	0	0	0	4	0	69	9	0	0	0	**27,675**	**791**	Palustrine Emergent Wetland
13	Estuarine Forested Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Estuarine Forested Wetland
14	Estuarine Scrub/Shrub Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Estuarine Scrub/Shrub Wetland
15	Estuarine Emergent Wetland	0	19	0	17	0	21	0	82	7	42	0	0	0	394988	33	26	7	0	0	0	0	**395,222**	**254**	Estuarine Emergent Wetland
16	Unconsolidated Shore	1	1	0	2	0	1	0	10	1	1	0	0	0	117	8395	107	902	0	0	0	0	**9,538**	**1,143**	Unconsolidated Shore
17	Bare Land	79	210	17	278	0	820	3	15030	54	741	150	0	0	21	204	24098	3192	0	0	0	0	**44,894**	**20,799**	Bare Land
18	Water	11	104	4	89	0	65	6	148	126	466	238	0	0	119	23	637	1427160	0	0	0	0	**1,429,197**	**2,037**	Water
19	Palustrine Aquatic Bed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Palustrine Aquatic Bed
20	Estuarine Aquatic Bed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Estuarine Aquatic Bed
21	Tundra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Tundra
22	Snow/Ice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	Snow/Ice
	Total Acres	**34,429**	**90,281**	**562,421**	**667,656**	**3,818**	**1,896,696**	**129,843**	**1,487,761**	**1,432,424**	**268,534**	**27,706**	**0**	**0**	**395,350**	**8,676**	**75,459**	**1,434,532**	**0**	**0**	**0**	**0**	**7,088,198**		**Total Acres**
	Percent of Total	**0.49%**	**1.27%**	**7.93%**	**9.42%**	**0.05%**	**26.76%**	**1.83%**	**20.99%**	**20.21%**	**3.79%**	**0.39%**	**0.00%**	**0.00%**	**5.58%**	**0.12%**	**1.06%**	**20.24%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**			**Percent of Total**
	Total Acres that Changed (Y2-Y1)	**3,940**	**13,559**	**1,406**	**-58,076**	**17**	**83,943**	**-1,344**	**-84,216**	**-87,259**	**92,753**	**111**	**0**	**0**	**127**	**-862**	**30,566**	**5,335**	**0**	**0**	**0**	**0**		**1,548,201**	**Total Acres that Changed**
	Percent Change	**12.92%**	**17.67%**	**0.26%**	**-8.00%**	**0.44%**	**4.63%**	**-1.03%**	**-5.36%**	**-5.74%**	**52.77%**	**0.40%**	**0**	**0**	**0.03%**	**-9.04%**	**68.08%**	**0.37%**	**0**	**0**	**0**	**0**		**21.84%**	**Percent Change**

FROM / TO	Developed	Cultivated	Grassland	Forested	Scrub/Shrub	Wetlands	Bare	Water	Total Acres	Changed	
Developed	107,210	0	0	0	0	0	0	0	**107,210**	**0**	**Developed**
Cultivated	89	555,361	3,025	185	2,251	239	83	18	**561,251**	**5,890**	**Cultivated**
Grassland	2,409	4,053	584,396	15,647	117,787	584	751	674	**726,301**	**141,905**	**Grassland**
Forested	10,764	978	67,208	2,781,362	560,389	17,029	44,298	1,723	**3,483,752**	**702,390**	**Forested**
Scrub/Shrub	3,806	2,007	12,619	664,135	1,058,710	18,030	5,413	847	**1,765,567**	**706,857**	**Scrub/Shrub**
Wetlands	512	232	435	7,052	148	2,104,080	4,229	1,676	**2,118,362**	**14,281**	**Wetlands**
Bare	291	17	280	880	15,782	1,085	32,801	4,093	**55,229**	**22,428**	**Bare**
Water	115	4	278	197	614	949	660	1,427,160	**1,429,978**	**2,818**	**Water**
Total Acres	**125,196**	**562,652**	**668,241**	**3,469,457**	**1,755,679**	**2,141,997**	**88,236**	**1,436,191**	**7,088,198**	**1,596,568**	**Total Acres**
Percent of Total (Y2/Total)	**1.77%**	**7.94%**	**9.43%**	**48.95%**	**24.77%**	**30.22%**	**1.24%**	**20.26%**		**22.52%**	
Total Change (Y2-Y1)	**17,985**	**1,402**	**-58,060**	**-14,295**	**-9,888**	**23,635**	**33,007**	**6,213**		**1,596,568**	
Percent Change	**16.78%**	**0.25%**	**-7.99%**	**-0.41%**	**-0.56%**	**1.12%**	**59.76%**	**0.43%**		**22.52%**	